

L Number	Hits	Search Text	DB	Time stamp
2	97125	bone	USPAT; EPO; JPO; DERWENT	2002/01/15 09:14
3	8	resveratrol and bone	USPAT; EPO; JPO; DERWENT	2002/01/15 08:49
4	1	9966913.pn.	USPAT; EPO; JPO; DERWENT	2002/01/15 06:27
5	554	genistein	USPAT; EPO; JPO; DERWENT	2002/01/15 06:47
6	4	resveratrol and genistein	USPAT; EPO; JPO; DERWENT	2002/01/15 06:47
7	19375	ischem\$	USPAT; EPO; JPO; DERWENT	2002/01/15 07:14
8	9	ischem\$ and resveratrol	USPAT; EPO; JPO; DERWENT	2002/01/15 07:14
9	2	5747536.pn.	USPAT; EPO; JPO; DERWENT	2002/01/15 07:25
10	3	4346107.pn.	USPAT; EPO; JPO; DERWENT	2002/01/15 07:25
11	29429	hypertension	USPAT; EPO; JPO; DERWENT	2002/01/15 09:26
12	7	hypertension and resveratrol	USPAT; EPO; JPO; DERWENT	2002/01/15 07:26
13	4	3624162.pn.	USPAT; EPO; JPO; DERWENT	2002/01/15 08:30
14	8	3624162.URPN.	USPAT; EPO; JPO; DERWENT	2002/01/15 08:24
15	109	\$resveratrol	USPAT; EPO; JPO; DERWENT	2002/01/15 08:31
16	1	\$resveratrol not resveratrol	USPAT; EPO; JPO; DERWENT	2002/01/15 08:31
1	108	resveratrol	USPAT; EPO; JPO; DERWENT	2002/01/15 08:31
17	46	("424/766").CCLS.	USPAT; EPO; JPO; DERWENT	2002/01/15 09:07
18	179	("568/729").CCLS.	USPAT; EPO; JPO; DERWENT	2002/01/15 09:10
20	0	bone and ((568/729).CCLS.)	USPAT; EPO; JPO; DERWENT	2002/01/15 09:10
21	65	514/733.ccls.	USPAT; EPO; JPO; DERWENT	2002/01/15 09:15
22	10	\$resveratrol and 514/733.ccls.	USPAT; EPO; JPO; DERWENT	2002/01/15 09:15
23	5	5747536.URPN.	USPAT; EPO; JPO; DERWENT	2002/01/15 09:17
24	7	hypertension and \$resveratrol	USPAT; EPO; JPO; DERWENT	2002/01/15 09:26

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
1	BRS	L2	97125	bone	USPAT; EPO; JPO; DERWE NT	2002/01/15 09:14		
2	BRS	L3	8	11 and 12	USPAT; EPO; JPO; DERWE NT	2002/01/15 08:49		
3	BRS	L4	1	9966913.pn.	USPAT; EPO; JPO; DERWE NT	2002/01/15 06:27		
4	BRS	L5	554	genistein	USPAT; EPO; JPO; DERWE NT	2002/01/15 06:47		
5	BRS	L6	4	11 and 15	USPAT; EPO; JPO; DERWE NT	2002/01/15 06:47		
6	BRS	L7	19375	ischem\$	USPAT; EPO; JPO; DERWE NT	2002/01/15 07:14		
7	BRS	L8	9	17 and 11	USPAT; EPO; JPO; DERWE NT	2002/01/15 07:14		
8	BRS	L9	2	5747536.pn.	USPAT; EPO; JPO; DERWE NT	2002/01/15 07:25		
9	BRS	L10	3	4346107.pn.	USPAT; EPO; JPO; DERWE NT	2002/01/15 07:25		
10	BRS	L11	29429	hypertension	USPAT; EPO; JPO; DERWE NT	2002/01/15 09:26		

	Errors
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
11	BRS	L12	7	l11 and l1	USPAT; EPO; JPO; DERWE NT	2002/01/15 07:26		
12	BRS	L13	4	3624162.pn.	USPAT; EPO; JPO; DERWE NT	2002/01/15 08:30		
13	BRS	L14	8	3624162.URPN.	USPAT; EPO; JPO; DERWE NT	2002/01/15 08:24		
14	BRS	L15	109	\$resveratrol	USPAT; EPO; JPO; DERWE NT	2002/01/15 08:31		
15	BRS	L16	1	l15 not l1	USPAT; EPO; JPO; DERWE NT	2002/01/15 08:31		
16	BRS	L1	108	resveratrol	USPAT; EPO; JPO; DERWE NT	2002/01/15 08:31		
17	IS&R	L17	46	("424/766").CCLS.	USPAT; EPO; JPO; DERWE NT	2002/01/15 09:07		
18	IS&R	L18	179	("568/729").CCLS.	USPAT; EPO; JPO; DERWE NT	2002/01/15 09:10		
19	BRS	L20	0	l2 and l18	USPAT; EPO; JPO; DERWE NT	2002/01/15 09:10		
20	BRS	L21	65	514/733.ccls.	USPAT; EPO; JPO; DERWE NT	2002/01/15 09:15		

	Errors
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
21	BRS	L22	10	115 and 121	USPAT ; EPO; JPO; DERWE NT	2002/01/15 09:15		
22	BRS	L23	5	5747536.URPN.	USPAT ; EPO; JPO; DERWE NT	2002/01/15 09:17		
23	BRS	L24	7	111 and 115	USPAT ; EPO; JPO; DERWE NT	2002/01/15 09:26		

	Errors
21	0
22	0
23	0

## Connecting via Winsock to STN

Trying 3106016892...Open

Welcome to STN International! Enter x:x

LOGINID: ssspta1623paz

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* \* \* \* \* \* \* \* \* \* \* Welcome to STN International \* \* \* \* \* \* \* \* \* \*

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Dec 17	The CA Lexicon available in the CAPLUS and CA files
NEWS	3	Feb 06	Engineering Information Encompass files have new names
NEWS	4	Feb 16	TOXLINE no longer being updated
NEWS	5	Apr 23	Search Derwent WPINDEX by chemical structure
NEWS	6	Apr 23	PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS	7	May 07	DGENE Reload
NEWS	8	Jun 20	Published patent applications (A1) are now in USPATFULL
NEWS	9	JUL 13	New SDI alert frequency now available in Derwent's DWPI and DPCI
NEWS	10	Aug 23	In-process records and more frequent updates now in MEDLINE
NEWS	11	Aug 23	PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
NEWS	12	Aug 23	Adis Newsletters (ADISNEWS) now available on STN
NEWS	13	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS	14	Oct 09	Korean abstracts now included in Derwent World Patents Index
NEWS	15	Oct 09	Number of Derwent World Patents Index updates increased
NEWS	16	Oct 15	Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS	17	Oct 22	Over 1 million reactions added to CASREACT
NEWS	18	Oct 22	DGENE GETSIM has been improved
NEWS	19	Oct 29	AAASD no longer available
NEWS	20	Nov 19	New Search Capabilities USPATFULL and USPAT2
NEWS	21	Nov 19	TOXCENTER(SM) - new toxicology file now available on STN
NEWS	22	Nov 29	COPPERLIT now available on STN
NEWS	23	Nov 29	DWPI revisions to NTIS and US Provisional Numbers
NEWS	24	Nov 30	Files VETU and VETB to have open access
NEWS	25	Dec 10	WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
NEWS	26	Dec 10	DGENE BLAST Homology Search
NEWS	27	Dec 17	WELDASEARCH now available on STN
NEWS	28	Dec 17	STANDARDS now available on STN
NEWS	29	Dec 17	New fields for DPCI
NEWS	30	Dec 19	CAS Roles modified
NEWS	31	Dec 19	1907-1946 data and page images added to CA and CAplus
NEWS EXPRESS			August 15 CURRENT WINDOWS VERSION IS V6.0c, CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP), AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
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NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that

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FILE 'HOME' ENTERED AT 06:50:30 ON 15 JAN 2002

=> file reg  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE ENTRY	TOTAL SESSION
0.15	0.15

FILE 'REGISTRY' ENTERED AT 06:50:44 ON 15 JAN 2002  
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TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when  
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Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

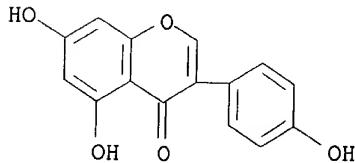
=> e genistein/cn  
E1 1 GENISTA SCOPARIA, EXT./CN  
E2 1 GENISTA TINCTORIA, EXT./CN  
E3 1 --> GENISTEIN/CN  
E4 1 GENISTEIN .BETA.-CYCLODEXTRIN 1:1 COMPLEX/CN  
E5 1 GENISTEIN 4',7-BIS(HEMISUCCINATE)/CN  
E6 1 GENISTEIN 4',7-DI-.ALPHA.-L-RHAMNOside/CN  
E7 1 GENISTEIN 4',7-DI-.BETA.-D-GLUCOPYRANOSIDE/CN  
E8 1 GENISTEIN  
4',7-DI-O-(TRI-O-ACETYL-.ALPHA.-L-RHAMNOpyranoside  
)/CN  
E9 1 GENISTEIN  
4',7-DI-O-(TRI-O-ACETYL-.BETA.-L-QUINOVYLpyranosid  
E)/CN  
E10 1 GENISTEIN 4',7-DI-O-.BETA.-D-GLUCOSIDE/CN  
E11 1 GENISTEIN 4',7-DIGLUCOSIDE/CN  
E12 1 GENISTEIN 4',7-DIOLEATE/CN

=> e3

L1 1 GENISTEIN/CN

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS  
RN 446-72-0 REGISTRY  
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA  
INDEX  
NAME)  
OTHER CA INDEX NAMES:  
CN Genistein (6CI)  
CN Isoflavone, 4',5,7-trihydroxy- (8CI)  
OTHER NAMES:  
CN 4',5,7-Trihydroxyisoflavone  
CN 5,7,4'-Trihydroxyisoflavone  
CN Baichanin A  
CN C.I. 75610  
CN Genisteol  
CN Genisterin  
CN NPI 031L  
CN Prunetol  
CN Sophoricol  
FS 3D CONCORD  
MF C15 H10 O5  
CI COM  
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*,  
BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS,  
CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU,  
DRUGU,  
EMBASE, HODOC\*, IPA, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC, PIRA, PROMT,  
RTECS\*, SPECINFO, TOXCENTER, TOXLIT, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*, NDSSL\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2358 REFERENCES IN FILE CA (1967 TO DATE)  
48 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
2370 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
34 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file cAPLUS  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
5.90	6.05

FILE 'CAPLUS' ENTERED AT 06:51:25 ON 15 JAN 2002  
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FILE LAST UPDATED: 14 Jan 2002 (20020114/ED)

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=> file reg	COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST		0.34	6.39

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<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

```
=> e resveratrol/cn
E1      1    RESUSCITATION-PROMOTING FACTOR PROTEIN (MICROCOCCUS LUTEUS
S
E2      1    TRAIN JCM-3348)/CN
S
E3      1    RESUSCITATION-PROMOTING FACTOR PROTEIN (MICROCOCCUS LUTEUS
S
E4      1    TRAIN NCIMB-13267)/CN
E5      1    --> RESVERATROL/CN
E6      1    RESVERATROL .BETA.-D-GLUCOSIDE/CN
E7      1    RESVERATROL 12-C-.BETA.-GLUCOPYRANOSIDE/CN
E8      1    RESVERATROL 3-O-.BETA.-GLUCOPYRANOSIDE/CN
E9      1    RESVERATROL 4'-O-.BETA.-D-GLUCOPYRANOSIDE/CN
E10     1    RESVERATROL CIS-DEHYDRODIMER/CN
E11     1    RESVERATROL GLUCOSIDE/CN
E12     1    RESVERATROL SYNTHASE/CN
E13     1    RESVERATROL SYNTHASE (PEANUT)/CN
E14     1    RESVERATROL TRANS-DEHYDRODIMER/CN
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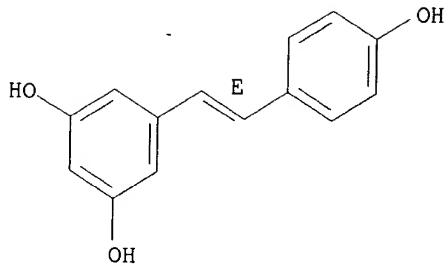
=> e3

L2 1 RESVERATROL/CN

=> d 12

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
RN 501-36-0 REGISTRY
CN 1,3-Benzenediol, 5-[{(E)-2-(4-hydroxyphenyl)ethenyl]- (9CI) (CA INDEX
NAME)
OTHER CA INDEX NAMES:
CN 1,3-Benzenediol, 5-[2-(4-hydroxyphenyl)ethenyl]-, (E)-
CN 3,4',5-Stilbenetriol (7CI, 8CI)
CN Resveratrol (6CI)
OTHER NAMES:
CN (E)-5-(p-Hydroxystyryl)resorcinol
CN (E)-Resveratrol
CN 3,5,4'-Trihydroxystilbene
CN CA 1201
CN trans-Resveratrol
FS STEREOSEARCH
DR 31100-06-8
MF C14 H12 O3
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CIN, CSCHEM, DDFU, DRUGU, EMBASE, HODOC\*, IPA, MEDLINE, MRCK\*, NAPRALERT, PHAR, PROMT, TOXCENTER, TOXLIT, USPATFULL
(\*File contains numerically searchable property data)

Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

828 REFERENCES IN FILE CA (1967 TO DATE)  
 38 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 835 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus  
 COST IN U.S. DOLLARS  
 FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
5.90	12.29

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 FILE LAST UPDATED: 14 Jan 2002 (20020114/ED)

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=> 12  
L3        832 L2

=> reveratrol  
L4        5 REVERATROL

=> resveratrol  
L5        1048 RESVERATROL  
            8 RESVERATROLS  
            1048 RESVERATROL  
            (RESVERATROL OR RESVERATROLS)

=> 13 or 15  
L6        1081 L3 OR L5

=> bone  
L7        127571 BONE  
            14967 BONES  
            132325 BONE  
            (BONE OR BONES)

=> 15(1)16  
L8        1048 L5(L)L6

=> 17(1)16  
L9        9 L7(L)L6

=> d 19 1-9 ti

L9   ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI   Effect of polyphenols on calcium content and alkaline phosphatase activity  
      in rat femoral tissues in vitro

L9   ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI   Inhibition of dioxin effects on **bone** formation in vitro by a newly described aryl hydrocarbon receptor antagonist, **resveratrol**

L9   ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI   Phytoestrogen, resveratrol and women's health

L9   ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI   Drugs, foods and oral compositions containing stilbene-type compounds

L9   ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI   Resveratrol composition useful to treat periodontal disease

L9   ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI   **Resveratrol** attenuates ovariectomy-induced hypertension and **bone** loss in stroke-prone spontaneously hypertensive rats

L9 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI Resveratrol and red wine consumption

L9 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI Resveratrol stimulates the proliferation and differentiation of osteoblastic MC3T3-E1 cells

L9 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI Is resveratrol an estrogen agonist in growing rats?

=> d 19 6-9 ti fbib abs

L9 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI **Resveratrol** attenuates ovariectomy-induced hypertension and **bone** loss in stroke-prone spontaneously hypertensive rats  
AN 2000:364790 CAPLUS  
DN 133:99348  
TI **Resveratrol** attenuates ovariectomy-induced hypertension and **bone** loss in stroke-prone spontaneously hypertensive rats  
AU Mizutani, Kenichi; Ikeda, Katsumi; Kawai, Yasuhiro; Yamori, Yukio  
CS Life Science, Environmental Conservation and Development, Nutritional Medicine, Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, 606-8501, Japan  
SO J. Nutr. Sci. Vitaminol. (2000), 46(2), 78-83  
CODEN: JNSVA5; ISSN: 0301-4800  
PB Center for Academic Publications Japan  
DT Journal  
LA English  
AB We examd. the effect of **resveratrol** (3,4',5-trihydroxy stilbene), a phenolic compd. found in the skins of most grapes, on blood pressure and **bone** loss in ovariectomized (OVX), stroke-prone spontaneously hypertensive rats (SHRSP). Nineteen-week-old female SHRSP were divided into a sham-ovariectomized (sham) group fed a control diet and two OVX groups fed either a control diet (OVX-Cont) or a diet supplemented with **resveratrol** (5 mg/kg per d: OVX-Resv). Ovariectomy induced significant increases in systolic blood pressure (SBP). **Resveratrol** lowered the SBP by 15% by the third week of administration, and this effect was maintained throughout the study. **Resveratrol** treatment also significantly enhanced endothelium-dependent vascular relaxation in response to acetylcholine (ACh) in OVX rats. Finally, femur breaking energies measured for the **resveratrol**-treated (OVX-Resv) group were significantly higher than those of the **resveratrol**-untreated (OVX-Cont) group. While no significant differences in calcium, magnesium and phosphorus content were found between the femurs of OVX-Cont and OVX-Resv rats, the femur hydroxy-proline-content in the OVX-Resv group was significantly higher than of the OVX-Cont group. We conclude that, in OVX-SHRSP, **resveratrol** acts by a similar mechanism to mammalian estrogens, lowering blood pressure by increasing dilatory responses to ACh. The present study also demonstrated that **resveratrol** was able to prevent ovariectomy-induced decreases in femoral **bone** strength.

RE.CNT 49

RE

- (3) Anderson, J; Proc Soc Exp Biol Med 1998, V217, P345 CAPLUS
- (4) Anthony, M; J Nutr 1996, V126, P43 CAPLUS
- (5) Arjmandi, B; J Nutr 1996, V126, P161 CAPLUS
- (7) Baysal, K; Clin Exp Pharmacol Physiol 1996, V23, P537 CAPLUS
- (8) Bolego, C; Life Sci 1997, V60, P2291 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI Resveratrol and red wine consumption  
AN 2000:4052 CAPLUS  
DN 132:333848  
TI Resveratrol and red wine consumption  
AU Slater, I.; Odum, J.; Ashby, J.  
CS Zeneca Central Toxicology Laboratory, Macclesfield, SK10 4TJ, UK  
SO Hum. Exp. Toxicol. (1999), 18(10), 625-626  
CODEN: HETOEA; ISSN: 0960-3271  
PB Stockton Press  
DT Journal  
LA English  
AB The effects of orally given **resveratrol** on 3 estrogen-sensitive targets (uterus, blood cholesterol, **bone** d.) were studied in ovariectomized rats. **Resveratrol** was given at 0.03 mg/kg/day (dose estd. from moderate red wine consumption in humans), 3, or 70 mg/kg/day in peanut oil for 14 days. Rats given 0.45 mg estradiol/kg/day s.c. served as pos. controls. The animals were sacrificed 24 h after the last doses. The uterus wt., **bone** mineral d. (BMD), and blood plasma HDL-cholesterol were detd. Estradiol increased the uterine wt., decreased HDL-cholesterol levels, and had no effect on BMD. **Resveratrol** had no effect on these 3 parameters. Thus, the estrogenic super-agonist activity obsd. earlier in MCF-7 cells in vitro  
is not predictive of the in vivo activity. It is unlikely, that the cardiovascular protective effects of red wine consumption are mediated via an estrogenic pathway.  
RE.CNT 5  
RE  
(1) Ashby, J; J Applied Toxicol 1999, V19, P39 CAPLUS  
(2) Ashby, J; Regul Toxicol Pharmacol 1997, V25, P226 CAPLUS  
(3) Dukes, M; J Endocrinol 1994, V141, P335 CAPLUS  
(4) Gehm, B; Proc Nat Acad Sci 1997, V94, P14138 CAPLUS  
(5) Turner, R; Endocrinology 1999, V140, P50 CAPLUS  
  
L9 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI Resveratrol stimulates the proliferation and differentiation of osteoblastic MC3T3-E1 cells  
AN 1999:36541 CAPLUS  
DN 130:232445  
TI Resveratrol stimulates the proliferation and differentiation of osteoblastic MC3T3-E1 cells  
AU Mizutani, Kenichi; Ikeda, Katsumi; Kawai, Yasuhiro; Yamori, Yukio  
CS Department of Environmental Preservation and Development, Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, 6068501, Japan  
SO Biochem. Biophys. Res. Commun. (1998), 253(3), 859-863  
CODEN: BBRCA9; ISSN: 0006-291X  
PB Academic Press  
DT Journal  
LA English  
AB Nutritional and pharmacol. factors are needed to prevent **bone** loss that occurs with increasing age. The chem. compds. that act on **bone** metab. as nutrients in food, however, are poorly understood. The effect of **resveratrol**, a natural phytoestrogen, on the proliferation and differentiation of osteoblastic MC3T3-E1 cells was

studied. **Resveratrol** dose-dependently increased DNA synthesis (10<sup>-9</sup>-10<sup>-7</sup> M) of MC3T3-E1 cells. In addn., **resveratrol** increased alk. phosphatase (ALP) activity and prolyl hydroxylase activity of MC3T3-E1 cells (10<sup>-6</sup>-10<sup>-5</sup> M). Moreover, the antiestrogen tamoxifen eliminated the stimulation of MC3T3-E1 cells (proliferation and ALP activity) by **resveratrol**. On the other hand, **resveratrol** inhibited prostaglandin E2 prodn. in MC3T3-E1 cells (10<sup>-8</sup>-10<sup>-6</sup> M). Our present study is the first to demonstrate that **resveratrol** directly stimulates cell proliferation and differentiation of osteoblasts. (c) 1998 Academic Press.

RE.CNT 37

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- (2) Anderson, J; Proc Soc Exp Biol Med 1998, V217(3), P345 CAPLUS
- (3) Benvenuti, S; J Bone Miner Res 1991, V6(9), P987 CAPLUS
- (5) Chen, C; Gen Pharmacol 1996, V27, P363 CAPLUS
- (6) Cheng, S; Calcif Tissue Int 1994, V55, P356 CAPLUS
- (8) Feldman, D; Endocrinology 1997, V138, P1777 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS  
TI Is resveratrol an estrogen agonist in growing rats?  
AN 1999:11133 CAPLUS  
DN 130:177389  
TI Is resveratrol an estrogen agonist in growing rats?  
AU Turner, Russell T.; Evans, Glenda L.; Zhang, Minzhi; Maran, Avudaiappan; Sibonga, Jean D.  
CS Departments of Orthopedics, Biochemistry, and Molecular Biology, Mayo Graduate School of Medicine, Rochester, MN, 55905, USA  
SO Endocrinology (1999), 140(1), 50-54  
CODEN: ENDOAO; ISSN: 0013-7227  
PB Endocrine Society  
DT Journal  
LA English  
AB Trans-3,4,5-trihydroxystilbene (**resveratrol**), a polyphenolic compd. found in juice and wine from dark-skinned grape cultivars, was recently shown to bind to estrogen receptors *in vitro*, where it activated transcription of estrogen-responsive reporter genes. The purpose of this 6-day study in weanling rats was to det. the dose-response (1, 4, 10, 40, and 100 .mu.g/day) effects of orally administered **resveratrol** on estrogen target tissues. The solvent (10% ethanol) had no significant effect on any measurement or derived value. 17.beta.-Estradiol treatment (100 .mu.g/day) decreased the growth rate, final body wt., serum cholesterol, and radial **bone** growth (periosteal **bone** formation and mineral apposition rates) at the tibia-fibula synostosis. In the uterus, 17.beta.-estradiol treatment increased wet wt., epithelial cell height, and steady-state mRNA levels for insulin-like growth factor I. In contrast, **resveratrol** treatment had no significant effect on body wt., serum cholesterol, radial **bone** growth, epithelial cell height, or mRNA levels for insulin-like growth factor I. **Resveratrol** treatment resulted in slight increases in uterine wet wt. but significance was achieved at the 10-.mu.g dose only. A second expt. was performed to det. whether a high dose of **resveratrol** (1000 .mu.g/day) antagonizes the ability of estrogen to lower serum cholesterol. As was shown for the lower doses, **resveratrol** had no effect on body wt., uterine wet wt., uterine epithelial cell height, cortical **bone** histomorphometry, or serum cholesterol. 17.beta.-Estradiol significantly lowered serum cholesterol, and this response was antagonized by cotreatment with **resveratrol**. These *in vivo* results suggest, in contrast to prior *in vitro* studies, that

**resveratrol** has little or no estrogen agonism on reproductive and nonreproductive estrogen target tissues and may be an estrogen antagonist.

RE.CNT 25

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- (1) Bertelli, A; Int J Clin Pharmacol Res 1996, V16, P77 CAPLUS
- (2) Bertelli, A; Int J Tissue React 1995, V17, P1 CAPLUS
- (3) Bertelli, A; Int J Tissue React 1996, V18, P67 CAPLUS
- (4) Black, L; J Clin Invest 1994, V93, P63 CAPLUS
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=> save temp all bone/l  
L# LIST L1-L9 HAS BEEN SAVED AS 'BONE/L'

=> logoff hold  
COST IN U.S. DOLLARS

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	19.61	31.90

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	-2.48	-2.48

SESSION WILL BE HELD FOR 60 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 06:58:00 ON 15 JAN 2002